

**IN THE MATTER OF THE APPLICATION REGARDING CONVERSION  
OF PREMIERA BLUE CROSS AND ITS AFFILIATES**

Washington State Insurance Commissioner's Docket # G02-45

**REPORT OF**

**NovaRest Consulting**

**Capital Requirements and Sources of  
Capital**

November 10, 2003

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NOT FOR PUBLIC DISCLOSURE



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## **PREMERA CONVERSION**

### **CAPITAL REQUIREMENTS AND SOURCES OF CAPITAL**

**BY NOVAREST CONSULTING**  
**November 10, 2003**



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## SECTION I - EXECUTIVE SUMMARY

In September 2002 Premera, Premera Blue Cross, and certain of its affiliates (collectively Premera) filed a Form A application in Washington, Alaska, and Oregon to convert from a nonprofit entity to a for-profit publicly traded company. Premera engaged NovaRest, Inc to prepare an expert opinion concerning the effect of risk-based capital (RBC) and affordable growth on a company's need for capital.

The purpose of this report is to:

- explain RBC regulatory requirements and BlueCross BlueShield Association capital requirements;
- describe the dynamics of RBC requirements as companies grow;
- define and explain affordable growth; and
- explain the implications of being capital constrained on corporate decision making.

This report also explains the impact of alternative capital sources on meeting RBC requirements, comments on how to determine appropriate capital targets, and provides an opinion on the minimum RBC target appropriate for Premera. All examples and data included in the report are as of year-end 2002.

### Summary

Companies have many capital needs and limited sources to satisfy those needs. Capital is needed by insurance organizations to meet regulatory requirements, allow for growth or expansion, and protect against adverse experience. The need for capital will normally grow with medical inflation and will only diminish if the business contracts. A plan to satisfy those needs now and in the future has to be developed and implemented.

RBC is a requirement of the Washington state insurance regulators and the BlueCross BlueShield Association. Due to BlueCross BlueShield Association requirements, Premera must



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maintain at least a 375% RBC level to avoid monitoring<sup>1</sup>. For a BlueCross BlueShield Plan, a RBC target of 500% or more is needed to allow for statistical fluctuations in profits, capital needed for corporate projects, and capital needed for growth. Specific RBC targets are set based on a company's growth, risk tolerance, ability to recover from adverse development, and strategic plans. To determine a specific RBC target for Premera would involve extensive actuarial and financial modeling, which is beyond the scope of this assignment. However, based upon our experience with other BlueCross BlueShield Plans similar to Premera a RBC of 500% or above is an appropriate target. Premera's year-end 2002 RBC was 406%; therefore it would require a \$72<sup>2</sup> million increase in capital to reach a minimum target of 500% RBC.

RBC requirements increase annually with medical inflation. At the 500% RBC target, a 15% increase in medical expenses will necessitate an increase in Premera's RBC requirement that would be substantially equivalent to Premera's current level of underwriting profits and investment earnings. To achieve a 500% RBC target, Premera must obtain additional capital from other sources.

There are a limited number of sources of capital relief for Premera. Each potential source of capital has varying costs, effect on future profits, and value in meeting regulatory requirements. Premera's proposed conversion is expected to provide additional capital through the sale of stock. There are many advantages to raising capital through the sale of stock compared to other alternatives. Equity capital does not have to be repaid. Providing a return on stockholder investment is less of a problem, because most or all of the required return on stockholder investment comes from increases in the stock price. The increase in stock price is a natural result of new retained earnings already required to meet increasing RBC requirements.

As of year-end 2002, Premera was constrained for capital. With an RBC marginally in excess of the 375% RBC requirement of the BlueCross BlueShield Association, Premera may be constrained in making capital investments in customer service projects or projects that will

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<sup>1</sup> The system wide average RBC level for BlueCross BlueShield Plans is over 600%.

<sup>2</sup> For financials as of year-end 2002. Future results will require different amounts.



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improve operational efficiency. In the long term, if Premera does not raise capital through the sale of stock or cannot increase profits sufficiently, it may be forced to cannibalize its operations by selling off assets, and/or reduce membership. Also, the company may have to move more quickly than desirable to eliminate non-profitable lines of business in an effort to help rebuild capital. These are not good solutions for the company or for the marketplace.

As companies grow and their medical claims increase, their capital requirements (RBC) may approach their capital capacity. Affordable growth measurements depend on the RBC level that a company targets. For BlueCross BlueShield Plans, that target cannot be less than 375% (to avoid monitoring by the BlueCross BlueShield Association), but most Plans have targets well above 500%. Even using the lower 375% RBC target, Premera has little, if any, room for growth based on its year-end 2002 capital level of 406% of RBC. Of its peers, it ranks as one of the lowest as measured by estimated affordable growth.

Based on our experience with other BlueCross BlueShield Plans, we believe that a RBC target above 500% is appropriate for Plans with similar risks to Premera. The target should be increased above 500% when profits are not stable, special risks are present, and to allow for unplanned growth or capital investments. While working with Plans in weak capital positions, we have seen the time and effort that it takes to rebuild capital through attempting to increase premiums, postponing needed infrastructure investments, and/or implementing cost-cutting efforts.

### Health Insurer Capital Requirements

When insurers are at or below RBC targets, increasing capital requirements demand corresponding increases in the level of annual profits. Additional factors, such as providers moving from capitations to discounted fee schedules, further increase RBC and profit requirements. On top of regulatory requirements, capital is needed for strategic plans and to react to changes in the marketplace.



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Insurance companies have state regulatory requirements to maintain sufficient capital levels. Additionally, the BlueCross BlueShield Association has capital requirements for BlueCross BlueShield Plans<sup>3</sup>. It is critical to understand how these requirements increase over time and how they impact capital needs. Both state requirements and the BlueCross BlueShield requirement use the same base formula, which was developed by the NAIC and is referred to as risk-based capital (RBC). The formula is based on statutory accounting<sup>4</sup> and results in a capital requirement that is then compared to actual capital, resulting in a RBC ratio typically ranging from 200% to over 900%.

Statutory requirements are considered minimal levels and are the levels at which regulators and insurers have specified duties to address the company's future viability. The levels where state RBC requirements demand action are set at lower percentages (70%-200%) than the BlueCross BlueShield Association licensure and monitoring levels (200%-375%). Some states have requirements that exceed 200%, and some states have other measures which may suggest concerns even if the RBC ratio exceeds 200%.

The BlueCross BlueShield Association requires a higher level of capital because it believes that a higher standard is necessary to be financially sound. The system-wide average BlueCross BlueShield RBC level is over 600%. Capital levels in excess of the regulatory requirements protect all of the stakeholders in the health insurer. Stakeholders include insured groups and individuals, employees of the insurer, physicians and other providers. If the insurer becomes insolvent, all of these parties are likely to suffer financial loss.

Because RBC requirements for a health insurer are driven primarily by incurred claims, capital requirements increase every year as medical inflation drives up incurred claims. If incurred claims increase by 15%<sup>5</sup> and Premiera's RBC target is 500%, Premiera's RBC requirement will

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<sup>3</sup> The BlueCross BlueShield Association licenses the BlueCross BlueShield marks to independent health Plans. The BlueCross BlueShield Association has established licensure standards, e.g., minimum RBC requirements applicable to all licensees.

<sup>4</sup> Statutory accounting principles vary from GAAP accounting.

<sup>5</sup> 15% is the expected industry trend in 2003.



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increase by approximately 12.85% or 2.3% of premium<sup>6</sup>. This implies that once a 500% RBC level is reached, profits of approximately 2%-3% of premium are required to support normal medical inflation and maintain a minimum 500% RBC level<sup>7</sup>. These profits must be kept as retained earnings to increase capital to meet RBC targets. If kept as retained earnings, profits also increase stock value and provide returns to potential stockholders.

In addition to regulatory capital requirements, companies need capital for capital expenditures. Capital expenditures are often needed to increase capacity, improve efficiency or to provide up-to-date services in a changing environment, since retained profits may not be sufficient. Examples of such expenditures are making operational systems more efficient, making policyholder information easily accessible online or through call centers, and providing disease management support. Even if a company had sufficient capital according to its balance sheet, it may not have sufficient liquid assets to make the improvements necessary to execute strategic plans. In order to react to changing technology and regulatory requirements, companies must have capital above that demanded by RBC requirements.

In addition to keeping up with new technology, companies see growth as a way to best leverage their resources and provide efficient operations. Growth can come from an increased customer base due to population growth or from competing well for customers, but either way growth increases capital requirements.

At year-end 2002 Premera's RBC level was at 406%, well below the targets set by most BlueCross BlueShield Plans. Assuming that annual profits alone provide for the increase in RBC requirements demanded by medical inflation, Premera will continue to be in a weak capital position relative to other plans and needs to find a way to improve its capital levels.

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<sup>6</sup> Profits could come from investments and ASC fees, but capital needs are compared to premiums for perspective.

<sup>7</sup> Based on sensitivity testing using the NAIC forecasting software





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### Alternative Sources of Capital

When companies need capital, they have limited choices including sale of assets, mergers, increasing profits, borrowing money, or selling stock. Each of these alternatives has a different cost, balance sheet effect, and long range impact. Each alternative is discussed in the body of the full report.

In Premera's case each of these alternative solutions is inferior to raising capital through the equity markets. The amount received from a stock sale flows directly into capital and does not have to be repaid. Stockholders expect a return on their investment in the form of dividends or increased value. Increased stock value can come as the result of profits flowing into retained earnings. The increase in capital needed to meet increased RBC requirements creates increased stock values and stockholder return on investment.

If Premera cannot raise capital through the equity markets, it will have to make some less desirable changes. Premera had capital constraints as of year-end 2002, and if it cannot improve its capital position, it may have to put off capital investments in customer service projects or projects that will improve operational efficiency. In the absence of increased profits, Premera's capital position may force it to cannibalize its operations by selling off assets, and/or reduce membership. Also, Premera may have to move more quickly than desirable to eliminate non-profitable lines of business in an effort to help rebuild capital. These are not good solutions for the company or for the marketplace.

### The Impact of Capital Constraints on Corporate Decisions

If a company desires to increase membership or move into new product areas, there is an impact on its capital requirements. Some lines of business require more capital than others and therefore growth in those lines of business has more serious capital implications. A 10% increase in commercial insurance premium results in approximately a 7.61% increase in RBC<sup>8</sup> requirements;

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<sup>8</sup> Assuming similar loss ratios and medical management to Premera's current block of business.



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while an equivalent increase in administrative services contracts (ASC) business results in a 0.03% increase in RBC requirements.

Because different lines of business have different impacts on RBC requirements, companies with capital constraints have to make growth decisions based on the effect on RBC requirements. Less risky lines of business, such as ASC, where the employer takes the risk or highly managed care lines where capitations pass risk to providers, have the least impact on RBC requirements. Therefore, companies with capital constraints will generally have incentives to pass risk onto employers and providers in order to ease their poor capital position. This is often contrary to their corporate goals and objectives.

Capital constrained companies also find themselves delaying investments that improve their efficiency and profitability in the long term in order to find short term capital relief. The initiatives identified above as needing capital investment have to be scaled back or delayed. Company projects that increase customer service and efficiency are dramatically reduced leaving the company at a disadvantage in the marketplace.

### Corporate Affordable Growth

Traditional financial analysis looks at corporate finances to determine how much a company can grow based on its capital. This affordable growth is based on maintaining a target debt-to-equity ratio and determining how much growth can take place before the actual ratio exceeds the targeted maximum. For health insurers, RBC requirements replace the traditional debt-to-equity ratios. As companies grow and their medical costs increase, their capital requirements (RBC) may approach their capital capacity.

Affordable growth is determined by how much growth can take place before the RBC ratio falls below acceptable levels. The amount of affordable growth depends on the very lowest RBC level that a company will tolerate. Since the growth potential is the amount of capital held above the RBC target, the higher the target the lower the growth potential. For our analysis, we



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use the lower 375% RBC target, to indicate the maximum amount of growth potential.

Realistically, a BlueCross BlueShield Plan would not implement a business strategy that would bring it to such a low level.

Even based on the 375% measure, Premera's affordable growth is very low. When compared to estimated growth potential of its peers, it ranks among the lowest. If the RBC target is raised to 500% or more, Premera, with a RBC level of 406% at year-end 2002, had no growth potential because its capital is below the target.

### Appropriate Target Capital

Appropriate target capital has to be sufficient to protect companies from statistical fluctuations in underwriting profit and loss. A safety margin of capital is necessary to protect all of the parties that would be harmed if the insurer became insolvent. Target capital levels should be set so that normal fluctuations do not bring companies down to risky capital levels. Because of the amount of actuarial expertise that went into the development of the RBC formula, risky capital levels are typically defined as a RBC ratio.

On top of the capital required to protect against falling into a risky financial position, capital is required to implement strategic business plans and react to new regulations such as the Health Insurance Portability and Accountability Act (HIPAA).

Based on our experience with other BlueCross BlueShield Plans, we believe that a RBC target above 500% is appropriate for Plans with similar risks to Premera. The target should be increased above 500% when profits are not stable, special risks are present, and to allow for unplanned capital investments. To determine the specific target capital level for Premera, its risk tolerance, historic profit fluctuations, special environmental risks, and other actuarial factors should be modeled using actuarial and financial techniques.



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### SECTION II - BACKGROUND

This report is based on experience gained while participating in the development of the National Association of Insurance Commissioners' (NAIC) health RBC formula and experience with BlueCross BlueShield Plans that were not meeting the BlueCross BlueShield Association's prior capital requirement, Capital Benchmark. The consultants participating in the preparation and review of the report are experts in RBC and in how it is impacted by medical trends and corporate financial transactions.

The main author of the report, Donna Novak, has over 30 years of experience and is the leader of her own consulting firm. She specializes in predicting the cost of health care insurance reform, as well as measuring the financial health of insurers, HMOs, and health care providers that assume risk. She has worked with state regulators and the NAIC to implement new insurance reform regulations and with the NAIC to develop the Health Financial Analyst Manual. She has assisted regulators in tri-annual insurance reviews and in the review of proposed business affiliations between health insurance entities and proposed for-profit conversions.

Donna advised the Washington DC Department of Insurance and Securities Regulation in the original CareFirst business affiliation and during the most recent CareFirst attempted conversion. She advised the Delaware Attorney General when the Delaware BlueCross BlueShield Plan became affiliated with CareFirst. Donna also played a lead role in supporting the Vermont Department of Banking, Insurance, Securities, & Health Care Administration during the National Life of Vermont holding company formation.

Donna has held a number of leadership positions with the American Academy of Actuaries (AAA). In her role at the AAA, Donna has worked with the congressional staff designing the Health Insurance Portability and Accountability Act (HIPAA), advised the Medicare Commission, and reviewed the Health Care Financing Administration's new risk-adjuster mechanism for Medicare. Donna played a key role in the AAA effort to develop a Health



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Risk-Based Capital formula for the NAIC and led the group responsible for drafting the initial NAIC Health Reserving Guidance Manual. She is frequently asked to speak to industry and professional groups on health insurance risks and the capital needs associated with health risk taking.

### Report Structure

The remainder of the report covers:

- Health insurer capital requirements
- Alternative sources of capital
- Impact of capital constraints on corporate decisions
- Corporate affordable growth
- Appropriate target capital

*Section III; Health insurer capital requirements* are discussed including the role of regulatory requirements and corporate strategic plans. This section describes the effect of medical inflation and company growth on Premera's RBC requirements.

*Section IV; Alternative sources of capital* are discussed along with their impact on Premera's future profits and ability to meet regulatory requirements.

*Section V; The impact of capital constraints on corporate decisions* addresses types of strategic decisions that depend on having sufficient capital, noting that when its capital is constrained Premera's options are also constrained.

*Section VI; Corporate affordable growth* is defined for health insurers using RBC requirements as one of the primary parameters. It is shown that Premera has little or no affordable growth and at RBC targets of 500% or more has no growth potential with its year-end 2002 RBC ratio of 406%, which is below the target.



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*Section VII Appropriate target capital* for Premera is discussed considering the conclusions drawn in preceding sections.

In not-for-profit health insurance companies, the excess of assets over liabilities is commonly referred to as statutory reserves rather than capital and surplus. In this report we use the term capital to refer to the excess of assets over liabilities on a statutory basis.



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### SECTION III - HEALTH INSURER CAPITAL REQUIREMENTS

Capital is needed to make capital improvements and to meet regulatory requirements. The need for capital will not disappear or even diminish so a method of satisfying these needs has to be found. Regulatory requirements currently are defined by RBC levels found in state statute and by BlueCross BlueShield Association license agreements<sup>9</sup>.

#### Risk-Based Capital for Insurance Companies

A complete discussion of the NAIC risk-based capital (RBC) formula structure can be found in Appendix A.

RBC requirements increase as incurred claims grow with medical inflation or membership. Other factors, such as an increase in the number of discounted fee contracts (versus capitation) further increases RBC and profit requirements. Premiera has already seen this movement away from capitation and toward discounted fee schedules. When at or below RBC targets, increasing insurer capital requirements demand corresponding increases in the level of annual profits.

RBC uses factors that take into account the level of risk of the company's business. Such factors are frequently defined in terms of the formulas developed by the NAIC. In the NAIC paradigm, Total Adjusted Capital (TAC) is actual capital, with a few minor adjustments. TAC is compared to the RBC requirement to get a ratio. The ratio, if lower than 200%, causes the insurance company to report an "event" to the Commissioner in its state of domicile. The level of the ratio determines the type of event and the responsibilities of the company and state in planning to increase capital or reduce the RBC required. The basis of the RBC formula is the prior year-end financial statement.

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<sup>9</sup> The BlueCross BlueShield licenses the BlueCross BlueShield marks to independent health Plans. The BlueCross BlueShield Association has established licensure standards, e.g., minimum RBC requirements applicable to all licensees.



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For health companies, the underwriting risk is the overriding risk category and measures the risk that premiums are not sufficient to cover claims and administrative expense. The underwriting risk is dependent on incurred claims and reduced for risk that is passed to providers through fee schedules, capitations, etc. Underwriting risk drives the ultimate level of RBC requirements to such an extent that increases in other risks are severely reduced by a covariance formula and are therefore of little real effect.

RBC formulas may be used by rating agencies in developing their rating for a company. In this context, the rating agency may address both financial results and the company's plans for the future. Capital levels adequate for continuing operations in established blocks of business may be inadequate to grow membership or start offering new lines of business.

The BlueCross BlueShield Association now uses the NAIC formula as a standard that all of its Plans must meet or they lose their right to use the BlueCross and/or BlueShield name. If a BlueCross BlueShield Plan falls to 375% RBC in any quarter, the BlueCross BlueShield Association will put it on monitoring. Monitoring and corrective actions become more severe as RBC levels fall. At the 300% level, the Plan will be required to develop and implement a capital plan to increase its RBC position and ensure its commitment to its members. Finally, at the 200% level, the Plan will lose its right to use the BlueCross and/or BlueShield name and marks. To avoid monitoring and to protect future solvency, most BlueCross Blue Shield Plans have RBC targets above the BlueCross BlueShield Association's targets, thus providing a safety margin to protect against potential adverse circumstances. The system-wide average BlueCross BlueShield RBC level is over 600%.

Following is a graph of Premiera (the first bar) and its peer Blue Plans tracking RBC ratios from 1999 to 2002.<sup>10</sup> Premiera has consistently had one of the lowest RBC levels. At the end of 2002 it was at 406% or \$311.6 million. To reach a target capital of 500% of RBC (\$383.7 million),

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<sup>10</sup> Data for the RBC graph can be found in Appendix B. Data source: NAIC data from Thompson Financial database leased by NovaRest, Inc.

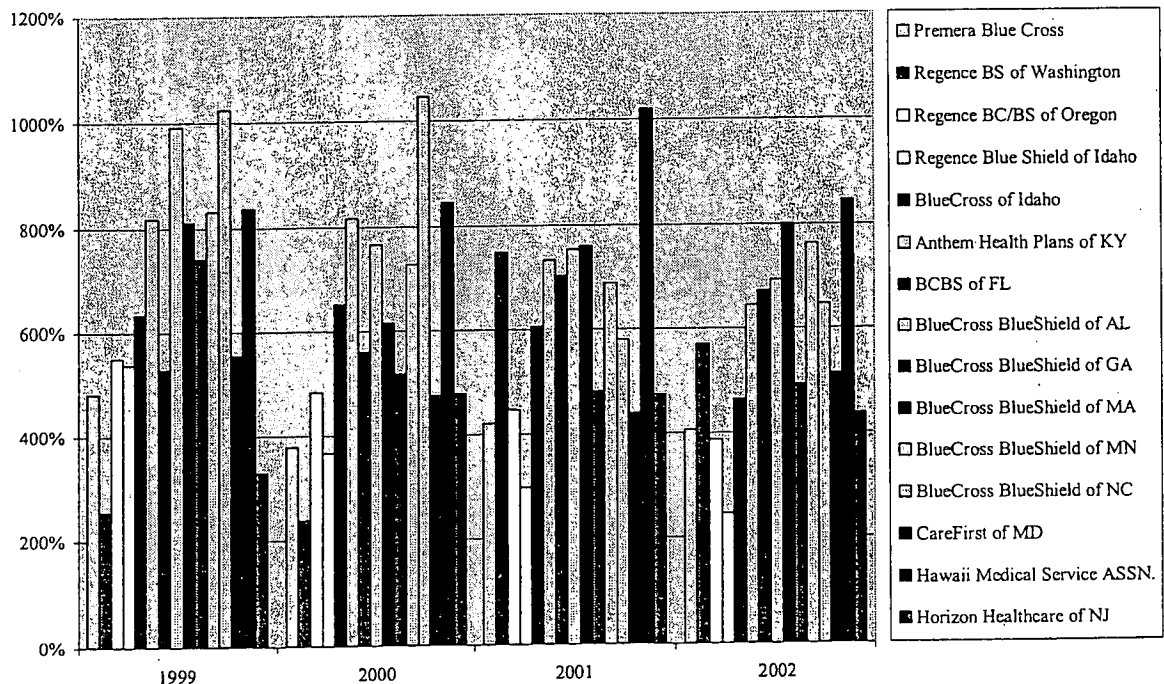




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Premera requires an increase in capital of \$72<sup>11</sup> million. With medical claims expenses increasing at 15% annually and no growth in members, RBC requirements reflecting a 500% target could increase by \$49 million (2.3% of premium) in 2003. This is close to Premera's current level of underwriting profits and investment earnings. Therefore, further increases to move actual capital to a target of 500% RBC level must come from other sources.

### Risk-Based Capital



### Strategic Plan Capital Needs

On top of the regulatory requirements described above, companies need capital for growth, innovation, improved customer service, and improved efficiency. Corporate strategic initiatives such as these require funding through capital investments.

<sup>11</sup> For financials as of year-end 2002. Future results will require different amounts.



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To provide competitive customer service and efficient operations, health insurers must continuously add new services and update computer systems and operational support. Recently, much of this improvement has been aimed at providing customers with easy access to information. This includes web sites that provide information on health care education, providers, and claim payment status. Innovative insurers provide disease management services using specially trained staff to keep in touch with chronic care patients with conditions such as diabetes and asthma. Claims processing is changing as more providers are able to submit claims electronically and federal regulations for privacy and claims coding go into effect. To keep up with the marketplace, companies have to make capital investments in projects aimed at customer service and operational efficiency.

Federal and state regulations have increased significantly in recent decades. These regulatory requirements can be very costly for health insurers. Recently, federal HIPAA privacy regulations have cost companies millions of dollars to change computer systems and operational procedures. It is unlikely that this will be the last of the costly regulations with health care on so many political agendas.

### Conclusions

RBC is a requirement of the Washington state laws and regulations and the BlueCross BlueShield Association. Due to BlueCross BlueShield Association requirements, Premera must maintain at least a 375% RBC level, but for a BlueCross BlueShield Plan a RBC level of 500% or more is a more fiscally responsible target to allow for statistical fluctuations and capital for corporate projects. At the 500% target level, a 15% increase in medical costs will require a 12.85% increase in the RBC requirement, which equates to required profits of 2%-3% of premium to maintain the RBC level.



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### SECTION IV - ALTERNATIVE SOURCES OF CAPITAL

There are limited sources of capital generation, and each has different profit implications. Approaches commonly used by companies to increase capital include sale of assets, mergers, increasing profits, debt, and sale of stock.

#### Sale of Assets

Company assets include lines of business, subsidiaries and hard assets such as buildings. Any of these can be sold to raise capital. If the admitted value of the asset is the same or more than the amount that the asset can be sold for, there is no increase in capital, but the form of the capital may be more liquid and therefore available to fund projects. If an asset is sold for more than its admitted balance sheet value, capital is increased.

Most assets increase profit either through direct profits such as an HMO subsidiary or through reduced costs such as owning a building versus paying rent. If the asset is sold, future profits will not be realized.

The sale of an asset is a one-time event. There is no potential future capital build-up or capital infusion once the asset is sold.

#### Mergers

Mergers with other insurers can generate capital if the partner has excess capital or if redundant operations can be eliminated or sold. Mergers and capital transfers post-merger must be approved by regulators in all jurisdictions affected. Most regulators place strict restrictions on post-merger flow of capital.



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If redundant operations are eliminated or sold, profitability is improved over the long run, but in the short run the merger transaction<sup>12</sup> reduces capital in both entities.

Many companies resist a merger as a solution to a capital problem because they lose autonomy. Additionally, the candidates for merger are often in other states, which reduces local control and presence.

### Increased Profits

It is not practical to increase profits enough in the short-term to provide significant capital. To increase profits, companies have to charge customers more, operate more efficiently, increase investment earnings, or pay suppliers less. Although there is often some room for improvement in these areas, each is limited and has potential negative consequences.

There is a limit to how much premiums can be increased because employers and individuals have other choices in the marketplace. Charging higher premiums may cause healthier individuals and groups to leave for lower rates elsewhere. This increases average claim cost, thereby reducing profits. If this process continues, it can reduce profits below their original level. Declining enrollment may also result in less efficient operations and less profit per dollar of premium.

Operating more efficiently has its limitations. Administrative costs are usually 10-20% of revenues. To raise capital by cutting administrative costs is not practical due to the time needed before significant savings can be realized. Care also has to be taken to not affect customer service, or membership may be lost due to administrative cuts.

Most of the recent reductions in net income have been from losses rather than gains in investment returns. Increased investment income is often realized by investing in riskier instruments, which may have the opposite effect and increase RBC requirements.

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<sup>12</sup> Transaction costs include legal fees, personnel payroll for employees supporting the merger effort and consulting fees for the companies and regulators.



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Provider contracting affects the ultimate medical expenses covered by insured contracts. Members are unable to contract with health care providers on their own behalf, so it becomes the responsibility of the health insurer to contract on behalf of its members. If contracting results in reimbursements that are too low, providers will not participate. If providers do not participate, members are not well served, because the network will not be robust and members will have to pay full fees when using the non-contracting providers. Therefore, health insurers must negotiate with the providers to get the best rates possible for their members while still providing fees acceptable to the providers. This limits the profit potential available from changes in provider contracts.

### Debt

A shorter term solution to capital shortages is to borrow money. A traditional loan does not increase capital since it results in an equal liability. Loans can be used to provide needed liquid assets for projects, but if the project requiring the loan does not result in an equal admitted asset, capital is reduced rather than increased. Also, future profitability and capital levels are reduced by interest payments.

Surplus notes are a type of debt instrument that increase capital since no liability is established. Surplus notes must be approved by insurance regulators and cannot be repaid without regulatory approval. In some cases, regulators have even refused to allow the payment of scheduled interest payments. Because of their risk and recent regulatory opposition, surplus notes are all but impossible to obtain. Even if a health insurer could find an entity willing to write a surplus note, it would be very expensive.

Another issue in borrowing capital is that rating agencies require safe levels of RBC ratios, in addition to other signs of financial strength. This forces companies to meet RBC targets or the cost of borrowing is increased.



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### Sale of Stock

When a company sells stock, it increases capital and the capital does not have to be repaid. A company may decide to repurchase some or all of its stock, but it is not obligated to do so. Stockholders recover their investment by selling the stock to other investors. Also, the company is not obligated to pay a fixed amount of interest to the stockholder. Investment returns are realized through dividend payments, which are not required,<sup>13</sup> and through increased stock value. Stock value is increased when current profits increase retained earnings and capital. As retained earnings increase, the company becomes more valuable along with the stock.

### Conclusions

There are many advantages to raising capital through the sale of stock compared to other alternatives. The purchase of stock is an entrepreneurial investment that provides capital, which does not have to be repaid. Profits used to meet RBC requirements increase retained earnings and capital, which stimulates an increase in stock price. The resulting increase in stock value provides a significant portion of the profit expectations of stockholders.

If it does not raise capital through the sale of stock or cannot increase profits significantly, Premera will be forced cannibalize its operations by selling off assets, and/or reduce membership. Also, the company may have to move more quickly than desirable to eliminate non-profitable lines of business in an effort to help rebuild capital. These are not good solutions for the company or for the marketplace.

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<sup>13</sup> Preferred stock has some requirements for dividend payment and acts more like debt, but that is not important for this discussion.



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### SECTION V - IMPACT OF CAPITAL CONSTRAINTS ON CORPORATE DECISIONS

The changes discussed above require capital investment to provide competitive customer service and efficient operations, health insurers must continuously add new services and update computer systems and operational support. To keep up with the marketplace, companies have to make capital investments in projects aimed at customer service and operational efficiency.

Capitally constrained companies have to make hard decision on how to use scarce capital and how much they can afford to keep pace with market innovations.

Budget constraints can severely limit company projects for customer service and innovation. Short term profitability may take precedence over long range goals. If innovative internet services will severely impact scarce capital, they may not be implemented even if the improved service would increase the company's value to its customers. Upgrades to claims processing or administrative systems may have to be sacrificed and the company may lose current and future efficiencies that would allow them to operate in a more cost effective manner.

In addition to keeping up with new technology, companies see growth as a way to best leverage their resources and provide efficient operations. Growth can come from an increased customer base due to population growth or from competing well for customers.

As companies develop a strategic growth plan, they compare the strategic advantages of different alternatives. In addition to profitability, they look at compatibility with corporate values, compatibility with corporate goals, and the overall effect on the organization. For example, a large ASC group with minimal profitability may be written because the increase in membership improves efficiency or the improved image associated with serving the prestigious employer will provide value as a whole.

When companies have capital constraints, their options are limited by those constraints. Much like individuals, when companies make budget decisions while financial resources are tight,



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financial considerations override other considerations. Take for example the decision to increase membership. A 10% increase in at-risk lines of business would increase RBC requirements by 7.61% and further strains scarce capital<sup>14</sup>. Increases in ASC lines of business have minimal effect on RBC requirements with a 0.3% increase for similar growth. At-risk lines may be more profitable and there may be more of a need in the community to offer innovative products to individuals and smaller employers, but a capital constrained company may not be able to grow those lines and may need to focus on lines such as ASC that has less of an RBC impact.

Capital improvements that offer the latest customer service innovations or increase efficiency may have to be postponed if there is insufficient capital. If this situation continues, a company may lose customers to competitors who do have the resources to provide top service and operate efficiently, thus lowering premiums. For the capital constrained health insurer, this results in lower profitability.

### Conclusions

Premera was capitally constrained as of year-end 2002. With its capital marginally in excess of 375% RBC, Premera may have to put off capital investments in customer service projects or projects that will improve operational efficiency in the long-run. Also, the company may have to move more quickly than desirable to eliminate non-profitable lines of business in an effort to rebuild capital.

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<sup>14</sup> Based on sensitivity analysis using the NAIC model





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### SECTION VI - CORPORATE AFFORDABLE GROWTH

David Packard, founder of Hewlett Packard, developed the affordable growth formula in order to fully understand how fast he could grow his company with internally-generated funds from operating profits. Many companies operate under the assumption that there is no limit to growth, as long as sales can increase. Growth, however, can easily outstrip a company's financial resources. The key, according to Packard is to determine an "affordable growth rate."

The affordable growth formula can be used to determine the growth potential of an organization. This formula assumes that: (1) sales can increase only as quickly as assets<sup>15</sup>; and (2) debt will grow at the same rate as equity. Based on these assumptions, affordable growth indicates the financial performance necessary to support expected sales growth. The formula also identifies how fast the company can grow without changing its debt structure. Thus, it can be an effective planning and budgeting tool.

Certainly, it is important for all business owners to *plan* the growth of their company, but this formula is more applicable for manufacturing companies with target debt-to-capital ratios. For health insurers RBC controls capital structures more than debt-to-capital targets. We, therefore, have taken the affordable growth concept and modified the formula to use current capital and minimum RBC requirements to accomplish the same analysis. For every dollar in growth, there is a "cost" in increased RBC requirements. A company can only grow until its RBC requirement reaches its current capital.

Affordable growth is determined by how much growth can take place before the RBC ratio falls below acceptable levels. The amount of affordable growth depends on the very lowest RBC ratio that a company will tolerate. For our analysis, we use 375% since that is the BlueCross BlueShield Association's first monitoring level. Realistically, a BlueCross BlueShield Plan would not implement a business strategy that would bring it to such a low level.

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<sup>15</sup> As with many traditional financial measures affordable growth is based on a manufacturing paradigm, which must be adjusted for service organization and financial institutions.



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If we estimate the cost of one percent increase in premium in RBC dollars at the RBC target and calculate the amount that current capital exceeds our RBC target, we can determine affordable growth. Since the growth potential is the amount of capital held above the RBC target, the higher the target the lower the growth potential. For our analysis, we use the lower 375% RBC target which would then indicate the maximum amount of growth potential. Using 375% RBC, maximum affordable growth is the difference between current capital and 375% of RBC, divided by the increase in RBC at the 375% level for a one percent increase in premium.

For Premera at 375% RBC, for every one-percent increase in commercial premium there is approximately a 0.734% increase in RBC requirement. At a 375% target RBC (\$287,738,216<sup>16</sup>) and with a year-end 2002 capital level of \$311,612,778<sup>17</sup>, there is \$23,874,562 in capital above the 375% target. Dividing the RBC increase (\$2,180,000) for a 1% premium growth into the amount of capital above 375% we see that affordable growth for Premera at year-end 2002 was approximately 11%. This assumes that future net income is sufficient to cover increased RBC requirements resulting from increased medical costs.

Assuming a 375% RBC target, we have done very rough estimates of affordable growth of peer BlueCross BlueShield Plans to compare to Premera as shown in the following graph. Premera has one of the lowest levels of affordable growth. At a 500% target RBC, Premera has no growth potential at this time because its current capital is below this target.

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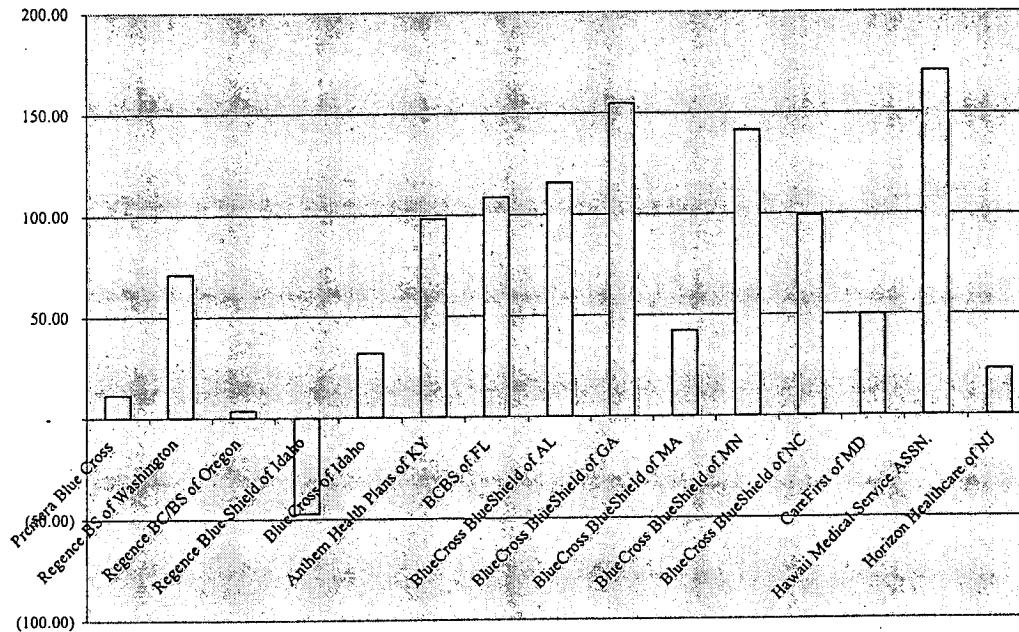
<sup>16</sup> RBC targets and increases are taken from sensitivity modeling using NAIC forecasting software. Graph values use the same formula as exemplified for Premera.

<sup>17</sup> Data source: NAIC data from Thompson Financial database leased by NovaRest, Inc.



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### Affordable Growth



### Conclusions

Even based on the 375% RBC level, Premera has little if any room for growth based on its year-end 2002 capital level of 406% of RBC. Of its peers, it ranks as one of the lowest as measured by estimated affordable growth.



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### SECTION VII - APPROPRIATE TARGET CAPITAL

Appropriate target capital has to protect companies from statistical fluctuations in underwriting profit and loss. Normal fluctuations should not bring companies down to risky capital levels. Actuarial models are used along with company specific and general market data to determine the probability of loss in a period of time. The period of time may be one year or some number of consecutive years. Depending on the company's risk tolerance and ability to recover from loss, a percentile and level of loss is determined and a surplus level needed to cover the loss is targeted. This target is usually translated into a RBC percentage.

Sufficient capital must be kept to ensure that statistical fluctuations in the company's finances do not reduce capital to an unsafe level. A safety margin of RBC protects all of the stakeholders, including insured groups and individuals, employees of the insurer, physicians, and other medical providers. If the insurer becomes insolvent all of these parties are likely to suffer some financial loss.

Capital margins can be reduced if a company has rapid access to capital through a parent organization. This may be the case when a health insurer has a parent company with sufficient capital to provide capital if needed. Care should be taken if regulatory approval is needed to move capital from one entity to another. Regulatory approval may be needed if the parent company and subsidiary are not domiciled in the same state. Also, a parent company's capital may not provide the needed protection if multiple subsidiaries are depending on the capital of one parent. If more than one subsidiary has financial needs at the same time the parent company's capital may be insufficient.

Additionally, capital is required to implement strategic business plans and react to new regulations such as the Health Insurance Portability and Accountability Act (HIPAA). A potential cost for these projects and the time frame typically available for their implementation



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can be estimated. A net present value is determined and some portion may be added to target capital to allow for future projects.

### Conclusions

Based on our experience with other BlueCross BlueShield Plans, we believe that a RBC target above 500% is appropriate for Plans with similar risks to Premera. The minimum 500% RBC target is based on the types of risk found in BlueCross BlueShield Plans and the fact that in most cases there is no parent entity to provide quick access to capital. While working with Plans in weak capital positions, we have seen the time and effort that it takes to rebuild capital through attempting to increase premiums, postponing needed infrastructure investments, and/or implementing cost-cutting efforts. Higher targets are appropriate when profits are not stable, special risks are present, and to allow for unplanned capital investments. Specific targets should be determined using actuarial models.



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### APPENDIX A RISK-BASED CAPITAL

Risk-based capital (RBC) is one manner in which capital adequacy may be determined. It is important to note that it is only one of several bases and that the level necessary for another basis may be higher. RBC establishes capital levels based on applying factors to risk exposures. The factors may take into account the level of risk (e.g. junk bonds are considered more risky than A-rated bonds), the ability of larger blocks to offset statistical variations through pooling (e.g. a pool of common stocks is likely to vary less than a portfolio of only five different stocks) and, through modeling, the ability for different aspects of the company to deal with equivalent risk tolerance (e.g. asset default risk and loss on insurance contract risk). The risk exposures recognize the relative size of different portions of the company's business or one company versus another.

RBC levels are frequently defined in terms of the formulas developed by the National Association of Insurance Commissioners (NAIC). In that paradigm, actual levels of capital are adjusted for a few other specific items to determine Total Adjusted Capital (TAC) that is compared to the RBC. The ratio, if lower than 200%, causes the insurance company to report an "event" to the Commissioner in its state of domicile. The level of the ratio determines the type of event and the responsibilities of the company and the state in planning to increase capital or reduce the RBC requirement. The focus of the RBC formula is the prior year-end financial statement.

RBC formulas may be used by rating agencies in developing their rating for a company. In this context, the rating agency may address both financial results and the company's plans for the future. Capital levels adequate for continuing operations in established blocks of business may be inadequate to grow membership or start offering new lines of business.

Finally, many companies (including other financial institutions, like banks) have developed internal RBC formulas that address their particular way of operating and the manner in which



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they accept and control risks. As noted earlier, many BlueCross BlueShield Plans target 500% of RBC. Where a unique formula is developed, the formulas have generally addressed at least the following risk classes:

- A. Capital – Note that capital depends heavily on the financial reporting system and therefore will vary (e.g. USA vs EU, GAAP vs Statutory);
- B. Assets – The financial reporting system will define the basis for recognizing asset value;
- C. Management – Risk strategy and business planning are important components of management;
- D. Earnings – The ability to regularly generate profits, while a key responsibility of management, is so important that it gets its own category; and
- E. Liquidity – The ability to respond to unusually bad periods, especially for financial institutions and insurance companies.

### NAIC RBC Formulas

The NAIC has established three formulas for determining both RBC and TAC differently for (i) Life and Health Insurers (files the LRBC), (ii) Property & Casualty Insurers (files the P&CRBC) and (iii) Health Organizations (insurers and HMOs file the HRBC). Much of the conceptual framework for the formulas is consistent, yet each formula is unique. It should be noted that health insurance is also unique in that it is the one kind of insurance that can be written by all three types of insurers. The NAIC has addressed this in two different ways:

- 1. Any company with 95% or more of its premiums and reserves in the normal types of health insurance<sup>18</sup> would be expected to file the Health Organization statement and HRBC formula.
- 2. A P&C company with 5% or more of its premium in health products would use the LRBC portion for its health products, but use the P&CRBC formula otherwise.

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<sup>18</sup> Normal types are expense reimbursement types, such as major medical, dental or vision, stop-loss and Medicare Supplement. Not included would be disability income, long-term care, specified disease, accident-only and fixed indemnity coverage.



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The NAIC reviews each formula and may make changes for future filings. These changes become effective when adopted by the NAIC as part of the Annual Statement Instructions – even though the RBC filing is a separate confidential diskette filing.

### HRBC Formula

There are five major categories of risks in the HRBC formula. They are:

1. Asset Risk – Affiliates (uses the term H-0 for loss of value of affiliated investments);
2. Asset Risk – Other (uses the term H-1 for loss of value – principal, interest or carrying value – of non-affiliated investments);
3. Underwriting Risk – (uses the term H-2 for understatement of liabilities or inadequate premiums);
4. Credit Risk – (uses the term H-3 for loss on receivables or risk transfers); and
5. Business Risk – (uses the term H-4 to address general business risks - primarily costs of assessments or inadequate expense margins in premium).

The terms have been derived from actuarial literature and modified to allow for easy combination.

It should be noted that the formula does not merely add the RBC values after applying factors to each risk exposure. RBC values are added within each category. A covariance formula is used to reduce the RBC since risks that are independent are unlikely to occur together. The reported RBC is the RBC after covariance.

For health companies, the overriding risk category is the underwriting risk. It drives the ultimate level of RBC to such an extent that increases in other risks are severely reduced by the covariance formula and are therefore of little real effect. For example, a change of \$1000 in the H-1 increases RBC after covariance by about \$125. H-0 values are not similarly reduced. An increase of \$1000 increases RBC by \$1000.





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**Asset Categories** - The asset categories have factors for different types of assets (bonds, preferred stocks, common stocks, real estate etc.). The values of affiliated investments are separated and the H-0 component is not reduced by the covariance formula. For non-affiliated investments, there is an additional component to address liquidity/concentration. The RBC for the ten largest asset combinations (all types of assets from the same organization) is doubled.

Certain non-invested assets have factors as well. Of importance to Health Organizations is the asset for health care delivery equipment.

**Underwriting Category** - The premiums for various types of health insurance are used as risk exposure values. A broad based loss ratio for each type is used, in addition to a factor that reflects the premium volume and extent of risk transfer to health care providers (e.g. capitation, withholds or salaried staff) to produce one value for each type. Another value for each type is determined by assuming two claims for the largest possible amount, subject to a defined maximum that varies by type. The greater of these two values is the RBC for each type of health insurance. The factors are based on actuarial studies of historical variations in experience and the potential for each type to "use up" the initial capital assigned within a fixed period. Thus, those products with higher variability (e.g. stop-loss) have higher factors while those with lower variability (e.g. dental) have lower factors.

**Credit Category** - The three major components are the risks from reinsurance receivables, use of capitation<sup>19</sup> to providers (to reduce underwriting risk) and other receivables. Since only reinsurance in authorized reinsurers is allowed as an admitted asset, the factor (0.5%) is very low. The use of capitation risk depends on whether or not intermediaries are used and is eliminated if there is adequate security. Other receivables have a risk factor of 1% if the receivable is investment income, and 5% for others (health care receivables like pharmacy rebates and amounts due from affiliates).

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<sup>19</sup> The risk is seen as the potential for continuing payment to failed providers until the payments are stopped. The risk is seen as higher when there is a third party (intermediary) between the insurer and the direct provider of health services.



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Business Category – There are three risk groups in this category. Administrative expense risk (actual expenses exceed retention) is separated for risk-assumed business versus ASC business. Premiums subject to guaranty fund assessment represent a risk exposure; the factor is 0.5%. Finally, the formula contains an “Excessive Growth Risk” component which only applies if the RBC value growth rate exceeds the premium/revenue growth rate – i.e. the resulting factor is changing<sup>20</sup> so that RBC is increasing by more than 20% versus the rate of increase in the underlying premiums.

### Individual Health Organization Application

As noted, many companies have developed their own formulas. More recently, companies have made modifications to the NAIC RBC formula to address their own circumstances. Some have determined a percentage of the NAIC RBC Ratio that they want to exceed (e.g. capital sufficient to have a 500% or better RBC ratio).

The BlueCross BlueShield Association now uses the NAIC formula as a standard that all of its Plans must meet or they lose their right to use the BlueCross and/or BlueShield name. If a BlueCross BlueShield Plan falls to 375% RBC, the BlueCross BlueShield Association will put it on monitoring. Monitoring becomes more severe as RBC levels fall. At the 300% level, the Plan will be required to develop and implement a capital plan to increase its RBC position and ensure its commitment to its members. Finally, at the 200% level, the Plan will lose its right to use the BlueCross and/or BlueShield name and marks. To avoid monitoring and to protect future solvency, BlueCross BlueShield Plans typically have target RBC above the BlueCross BlueShield Association targets, providing a safety margin to protect against potential adverse circumstances.

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<sup>20</sup> The factor can increase by more than premium only if the loss ratio is increasing and/or the risk transfer credits are decreasing.



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A few companies have looked deeper into the formula components as they would apply to the specific company situation. Below are several aspects of the general assumptions that a particular health organization may want to consider.

**Affiliated Investments** – If the organization's affiliated investments are likely to be impacted in the same manner as the organization itself (e.g. health cost inflation, competition), it may be wise to consider a higher factor to reflect the potential loss of capital from operating losses in both the organization (direct loss of capital) and the decreased value of the affiliated investment.

**Underwriting Risk** – The ability to adjust premium rates to reflect higher health care costs is assumed in the actuarial models that are the basis for the factors. The models assume a short period, from when costs rise above expected levels until the company recognizes it has occurred, and can take action to increase premiums. Some products may take longer to recognize adverse change. The process of increasing rates which may add delays, and the potential for continuing losses until the process (e.g. rate approval) is complete all need to be considered for the particular company. Relying on average values may produce capital levels above what is necessary in a short time frame or below what is necessary in a long time frame.

**Capital Uses (In-force)** – The RBC formula does not address uses of capital other than to offset adverse experience. Health organizations, just to keep the same number of insured lives, must increase capital as the risk exposure (premiums) increases due to health cost inflation. Increasing the number of insured will take even more capital.

**Capital Uses (New)** – New ventures, expanding geographically or diversifying into other lines, take up additional capital – both to cover start-up expenses, acquisition costs or surplus strain and the greater potential for adverse experiences in small and/or new blocks of business.

**Sources of Capital** – Depending on the company's structure, it may have broad access to capital markets or may have few options to increase capital. Adequate capital should be sufficient to



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allow time to replace lost or used capital. Business plans, including sensitivity analysis<sup>21</sup>, should incorporate RBC calculations even if there are no new major uses of capital. If the plans include new ventures, etc., the capital should be sufficient to cover all potential costs of such new aspects, plus meet the desired level of capital for in-force business.

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<sup>21</sup> Health organizations have the potential to sustain losses that reduce capital through higher than expected claims. Capital is further reduced if deficiency reserves are required. Past cyclical periods suggest the use of multi-year sensitivity analysis.



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## Appendix B

Risk-Based Capital				
	1999	2000	2001	2002
Premiera Blue Cross	481%	378%	420%	406%
Regence BS of Washington	256%	238%	750%	570%
Regence BC/BS of Oregon	549%	483%	446%	385%
Regence Blue Shield of Idaho	537%	367%	297%	245%
BlueCross of Idaho	634%	652%	606%	463%
Anthem Health Plans of KY	819%	817%	734%	645%
BCBS of FL	527%	559%	704%	674%
BlueCross BlueShield of AL	991%	767%	754%	694%
BlueCross BlueShield of GA	812%	615%	761%	801%
BlueCross BlueShield of MA	742%	517%	481%	491%
BlueCross BlueShield of MN	832%	728%	689%	764%
BlueCross BlueShield of NC	1024%	1046%	580%	648%
CareFirst of MD	554%	475%	438%	513%
Hawaii Medical Service ASSN.	837%	845%	1020%	846%
Horizon Healthcare of NJ	329%	478%	473%	436%

Data source: NAIC data from Thompson Financial database leased by NovaRest, Inc.